## KENWOOD

# **KENWOOD NEXEDGE**<sup>®</sup> Radios are Crucial to Agencies Fighting Historic Fire in Tennessee



**PROJECT OVERVIEW:** During the Eastern Tennessee fire event in November 2016, first responders and other agencies used more than 1,200 KENWOOD NEXEDGE radios exclusively for their communications. Land Air Total Communications, KENWOOD Authorized Dealer in Sevier County, Tennessee supported the fire services and other public safety agencies responding to the fire. Land Air operates 6 sites, with 3 primarily used for the Eastern Tennessee fire event, and Land Air will shortly deploy 2 more sites, for a total of 8. Radios used during the Eastern Tennessee fire included KENWOOD NX-300G, NX-300GK, NX-800K, NX-320K, NX-820HGK, and NX-5300K2.

Seen from the air, the far eastern edge of Tennessee is the deep, dense green color of old growth trees. For more than a century, the only smoke that drifted over these ancient trees and the mountain towns nestled among them was the distinctive, grey fog that gives the Great Smoky Mountains its name.

All that changed November 23, 2016. That is the day that the largest fire in this region for over 100 years began as a tiny acre and a half blaze at the peak of Chimney Tops Trail in the Great Smoky Mountain National Park. An unlucky and disastrous combination of unprecedented drought conditions and unusual hurricane force winds caused that fire to expand from 70 to 17,000 acres in a few hours, escaping the boundaries of the

Great Smoky Mountain Park to ultimately take 14 lives, destroy 2,400 structures and cause the evacuation of 14,000 people.

The fire started the day before Thanksgiving. Five days later it had spread to dozens of acres, a fire that, while dangerous, was manageable. On Sunday night after Thanksgiving, weather conditions took an unexpected turn. Extremely high winds, clocked at over 90 MPH in some areas, fed oxygen to the fire. A statement from Great Smoky National Park officials described what happened next as "... unpredicted, extreme weather conditions that led to the exponential spread of fires both inside and outside of the National Park to spread rapidly and unpredictably, in spite of suppression efforts on Sunday

that included helicopter water drops...carrying burning embers long distances causing new spot fires to ignite across the north-central area of the park and into Gatlinburg." The fire would grow to threaten the several communities including Pigeon Forge and Pittman Center, all located in Sevier County.

## THE ROLE OF RADIO COMMUNICATIONS

In any fire, communications among the agencies on the scene is crucial. That urgency is heightened when a fire is moving rapidly, encompassing forest regions as well as homes and commercial buildings and has grown to the point when different agencies, from within a state, region and beyond, must be called in to handle the response.

Pigeon Forge, Tennessee Fire Chief Tony L. Watson observed, "One of the biggest problems in disasters involve communications issues. I had stocked a cache of KENWOOD radios in case of disaster so we'd have them ready to use and gave them to incoming units that came in, so I could keep them on my main channel. In an event like this, you're talking about a very dynamic situation and there was so much going on. At the height of a fire this size, you are talking about a lot of people, a lot of coordination and a lot of radios. KENWOOD digital radios enabled all of my units to talk to each other."

During what came to be called the Gatlinburg Fire, every agency on the scene deployed only KENWOOD NEXEDGE digital radios. The radios performed to a level that Sheriff Ronald L. Seals of Sevier County

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described as "Exceptional. Exceptional radio coverage throughout the county while this fire was going on. I can say nothing but good things about these radios. Coverage was excellent. Voice transmission was excellent. No problems whatsoever. I know of no one during the fire who had a problem with the radios. When all of the agencies met after the fire, everyone in our county was well pleased. The KENWOOD radios simply worked."

## A MASSIVE RESPONSE LEADS TO COORDINATION CONCERNS

According to a report in The New York Times, Sneedville, Tennessee Fire Department Lieutenant Rain Moore, who helped fight the fires in Eastern Tennessee, said, "Everywhere you looked, there were fires everywhere. It was like driving into hell." Moore was from one of the 150 Tennessee fire agencies, but fire service personnel responded



from seventeen other states, some as far away as Wyoming and Alaska and federal agencies including the National Park Service, U.S. Forest Service and Bureau of Land Management. Eventually, a total of 1,000 fire fighters fought the fires in Eastern Tennessee. Coordination became vital as these personnel and their equipment arrived and were deployed at the direction of local county and city agencies. According to USA Today, a total of 61 engines, 7 helicopters and 5 bulldozers were used to fight the fire.

Fire Chief Rosemary Nichols of the Pittman Center Community Volunteer Fire Department and her team fought a fire that started around 6:30pm on November 28. That is when a resident of the Village of Cobbly Nob saw a tree fall onto a power line and spark a brush fire that grew quickly due to the high winds and dry vegetation. Some gusts were clocked at almost 90mph, speeds that had never been seen in these mountains. The Cobbly Nob Fire eventually destroyed 98 of 328 structures and 817 acres.

"About an hour and a half into our event we lost communications. Our 8-year-old analog system had been consistently reliable, so we couldn't figure out why we lost communications because we had a battery backup system in place in the event of a power outage. Then it occurred to us that the building that housed our repeater was on fire and that meant that our repeater was gone, our antenna was gone, our battery backup

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 Chief Tony L. Watson, Pigeon Forge Fire Department system was gone. All we had for emergency communications were the non-repeated TAC channels on our radios and one KENWOOD digital radio for communications with Central Dispatch."

The local KENWOOD dealer, Land Air Total Communications of Sevierville, Tennessee was cited by all local fire agencies as crucial to their success in communicating by radio during the fires. On Tuesday morning, November 29, Chief Nichols placed a call to Michael Jenkins with Land Air and explained the situation. "Then I told him that radios alone wouldn't do us any good because we didn't have a repeater or a building or an antenna anymore. Michael said he would loan me a repeater and antenna space on a nearby tower and could have the radios overnighted. Mike had 25 KENWOOD digital radios programmed and delivered and had us back up and running by 4pm the next day. He really stepped up and worked with us."

"The fire and smoke was so intense that it covered up the microwave system," reported Sheriff Seals. "The radios were the only communications that worked. Ultimately, we used in excess of 1,200 KENWOOD radios during the fire."

The Sevier County School System buses converted to the official transportation system during the crisis. "We took nurses to shelters, we transported interpreters to shelters, we went to nursing homes with our buses to evacuate people to shelters," said Dr. Jack A. Parton, Superintendent of Schools. "Our major responsibility was getting patients to disaster relief facilities and medical staff to where the evacuees were staying. We also brought fuel to first responders. Sevier County started running out of fuel and we were tasked with getting fuel to the scene."

Dr. Parton reported that while they usually rely on a mix of smart phones and two-way radios for everyday use, that changed during the fire, saying, "We simply used our radios. Our KENWOOD radios continued to work. While we were talking to our employees, the local fire department and police and the federal relief coordinator, it was always crystal clear. We had no issues with our KENWOOD radios during the fire."

## LESS THAN 1% DROPPED CALLS

Peak loading on Land Air's three sites ranged from 60-81% according to a comprehensive post-event system review and analysis done by Land Air. The report examined system performance during the height of the crisis, looking in depth at the heaviest 24 hours of call volume, which lasted from 4:30pm on November 28 to 4:30pm on



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 Chief Rosemary Nichols, Pittman Center Fire Department

November 29. The analysis, based on 2,501 pages of call and data history, included fire and emergency management, law enforcement, ambulance/EMS and public works users.

Analysis revealed that the Bluff Mountain site logged 29,570 total transmissions. On that site, the total recorded dropped calls due to network failures were tracked at 0.1% or 29 calls. At the Ski Mountain site, it was 0.21% or 58 calls out of 28,320 total. At the English Mountain Site, 0.05% were dropped, which is a total of 3 out of 22,607 transmissions.

Chief Tony L. Watson reported, "I didn't have any problems at all. We had a loading factor of 99.4% of the talk capacity of the system and I had flawless operations."

### SEVIER COUNTY IS "MOUNTAIN TOUGH"

Sevier County and local communities worked together after the fire to launch mountaintough.org, an official website for the Smoky Mountain area recovery efforts. "Mountain Tough" is the theme that has resonated throughout the region after this disaster and describes the impressive recovery in the region. Tourists returned in the summer and much of the natural beauty of the Great Smoky Mountain National Park is still preserved.

"As long as I'm around, we'll be supporting KENWOOD radios" said Sheriff Ron Seals of Sevier County. "The radios are high quality; our local support could not be better with Land Air and the radios have proven they simply do whatever we want them to do."

"This is a good system and good radios that work well in emergencies for a good price point. No ifs, ands or buts. It's not only a superior mission critical investment, KENWOOD radios are a good investment for the taxpayers," said Chief Tony Watson with Pigeon Forge. "We appreciate our partnership with Land Air. They were there during the disaster to offer up radios. They brought radios right to my fire station. They're great members of the community and always figure out solutions for our county."

"I always tell my vendors that I want the best product at the best price. So, that's KENWOOD. I would tell anyone to come see our format. We are in the most mountainous area in the state of Tennessee. If radios work here, they'll work anywhere," said Dr. Parton with Sevier County School System.

"We couldn't ask for anything better," added Chief Rosemary Nichols with Pittman Center. "I'm sold on KENWOOD. I would tell any fire department, anywhere, that you simply can't go wrong with KENWOOD. They work great for us. Absolutely perfect."

